WHAT IS CLAIMED IS:

1. An insulated boxcar comprising:

a box structure defined in part by a pair of sidewall assemblies, a pair of endwall assemblies, a floor assembly and a roof assembly;

the floor assembly mounted on a railway car underframe;

the sidewall assemblies mounted on the railway car underframe adjacent to opposite sides of the floor assembly;

a respective longitudinal joint formed between each sidewall assembly and adjacent portions of the floor assembly;

each sidewall assembly having an exterior surface and an interior surface with insulating materials disposed therebetween;

a plurality of support posts disposed between the interior surface and the exterior surface of each sidewall assembly;

portions of a cargo restraining system disposed within each sidewall assembly proximate the respective joint with the floor assembly; and

no cargo anchors disposed within the floor assembly.

2. The insulated boxcar of Claim 1 wherein the cargo restraining system further comprises:

respective anchor restraints extending longitudinally along opposite sides of the floor assembly;

each anchor restraint disposed adjacent to one of the sidewall assemblies proximate the respective longitudinal joint between the sidewall assembly and the floor assembly;

a plurality of openings formed in each anchor restraint;

the openings sized to receive cargo anchor assemblies; and

enclosures disposed within each sidewall assembly adjacent to the openings in the respective anchor restraint.

3. The insulated boxcar of Claim 1 further comprising:

respective angles extending longitudinally along opposite sides of the floor assembly;

each angle disposed adjacent to and securely engaged with one of the sidewall assemblies proximate the respective longitudinal joint between the sidewall assembly and the floor assembly;

a plurality of openings formed in each angle;

the openings sized to receive cargo anchor assemblies;

generally U-shaped channels disposed within each sidewall assembly adjacent to the openings in the respective angle; and

the generally U-shaped channels cooperating with each other to prevent fluids used to clean the floor assembly from contaminating insulating materials disposed within the respective wall assembly.

4. The insulated boxcar of Claim 1 comprising:

the exterior surface of each sidewall assembly formed in part by layers of fiber reinforced plastic material;

the interior surface of each sidewall assembly formed in part by metal sheets; and

the insulating materials disposed between and bonded with the layer of fiber reinforced plastic material and the metal sheets.

5. The insulated boxcar of Claim 1 comprising:

the exterior surface of each sidewall assembly formed in part by metal sheets;

the interior surface of each sidewall assembly formed in part by layers of fiber reinforced plastic material; and

the insulating materials disposed between and bonded with the layer of fiber reinforced plastic material and the metal sheets.

6. The insulated boxcar of Claim 1 further comprising:

the exterior surface of each sidewall assembly formed in part by a plurality of metal sheets;

the interior surface of each sidewall assembly formed in part by a plurality of metal sheets; and

the insulating materials disposed between and bonded with the metal sheets forming the exterior surface and the metal sheets forming the interior surface.

7. The insulated boxcar of Claim 1 further comprising:

the railway car underframe having a pair of side sill assemblies attached thereto and extending longitudinally along opposite sides of the railway car underframe;

the support posts of each sidewall assembly attached with one of the respective side sill assemblies;

the interior surface of each sidewall assembly attached to respective first surfaces of the support posts;

the support posts formed from metal alloys;

a respective I-beam formed from a thermal insulating material, attached to a second surface of each support post opposite from the interior surface;

a plurality of pockets formed within the interior surface of each sidewall assembly;

each pocket disposed adjacent to one of the support posts; and

a cargo anchor disposed within each pocket and securely engaged with the respective sidewall assembly.

8. The insulated boxcar of Claim 1 further comprising:

the railway car underframe having a pair of side sill assemblies attached thereto and extending longitudinally along opposite sides of the railway car underframe;

the support posts of each sidewall assembly attached with a respective side sill assemblies;

the support posts formed from metallic material;

each support post having a first surface and a second surface;

the exterior surface of each sidewall assembly attached to the second surface of associated support posts;

thermal isolating material disposed between the first surface of each support post and adjacent portions of the associated interior surface;

a plurality of pockets formed within the interior surface of each sidewall assembly;

each pocket disposed adjacent to the thermal insulating material on one of the support posts; and

a cargo anchor disposed within each pocket and securely engaged with the respective sidewall assembly.

9. The insulated boxcar of Claim 1 further comprising:

each support post having an I-beam cross section;

a respective backup plate attached to the first surface of each support post;

the thermal insulating material attached to one of the backup plates opposite from the associated support port;

a generally U-shaped channel disposed between the thermal insulating material and the interior surface of the associated sidewall assembly; and

each pocket disposed in one of the U-shaped channels.

10. The insulated boxcar of Claim 1 further comprising:

a nominal length of sixty feet and exterior dimensions that satisfy AAR Plate F clearance requirements;

interior dimensions which provide cubic capacity equal to or greater than cubic capacity of uninsulated boxcars with a nominal length of sixty feet; and

heat transfer characteristics less than a UA factor of 300 BTU/°F/foot.

11. The insulated boxcar of Claim 1 further comprising the box structure satisfactory for carrying lading selected from the group consisting of coiled steel, lumber, pasteurized and unpasteurized beer, wine, newsprint, paper rolls, automobile parts, household goods, perishable food products and non-perishable.

12. An insulated boxcar comprising:

a box structure defined in part by pair of sidewall assemblies, a pair of endwall assemblies, a floor assembly and a roof assembly;

the floor assembly mounted on a railway car underframe;

the sidewall assemblies mounted on the railway car underframe adjacent to opposite sides of the floor assembly;

each sidewall assembly having an interior surface and an exterior surface with insulating materials disposed therebetween;

a plurality of support posts disposed between the interior surface and the exterior surface of each sidewall assembly;

the interior surface of each sidewall assembly attached to respective first surfaces of the support posts;

a beam, formed from thermal isolating material, attached to a second surface of each support post opposite from the interior surface;

the exterior surface of each sidewall assembly disposed adjacent to and attached to the I-beams opposite from the associated support posts;

a plurality of pockets formed within the interior surface of each sidewall assembly;

each pocket disposed adjacent to one of the support posts; and

a cargo anchor disposed within each pocket and securely engaged with the respective sidewall assembly.

13. The insulated boxcar of Claim 12 further comprising the support posts formed from materials selected from the group consisting of steel alloys, aluminum alloys and composite materials.

14. The insulated boxcar of Claim 12 further comprising each beam having an I-beam type cross-section and each support post having a hat type cross section.

15. The insulated boxcar of Claim 12 further comprising:

respective anchor restraints extending longitudinally along opposite sides of the floor assembly;

each anchor restraint disposed adjacent to one of the sidewall assemblies proximate a respective longitudinal joint between the sidewall assembly and the floor assembly;

a plurality of openings formed in each anchor restraint;

the openings sized to receive cargo anchor assemblies; and

enclosures disposed within each sidewall assembly adjacent to the openings in the respective anchor restraint.

16. An insulated boxcar comprising:

a box structure defined in part by pair of sidewall assemblies, a pair of endwall assemblies, a floor assembly and a roof assembly;

the floor assembly mounted on a railway car underframe;

the sidewall assemblies mounted on the railway car underframe adjacent to opposite sides of the floor assembly;

each sidewall assembly having an interior surface and an exterior surface with insulating materials disposed therebetween;

a plurality of support posts disposed between the interior surface and the exterior surface of each sidewall assembly;

each support post having a first surface and a second surface;

the exterior surface of each sidewall assembly attached to second surfaces of the respective support posts;

thermal isolating material disposed between the first surface of each support post and adjacent portions of the interior surface of each sidewall assembly;

a plurality of pockets formed within the interior surface of each sidewall assembly;

each pocket disposed adjacent to one of the support posts; and

a cargo anchor disposed within each pocket and securely engaged with the respective sidewall assembly.

17. The insulated boxcar of Claim 16 further comprising the support posts formed from materials selected from the group consisting of steel alloys, aluminum alloys, composite materials and pultrusions and extrusions of these materials.

18. The insulated boxcar of Claim 16 further comprising:

a respective backup plate disposed between the first surface of each support post and the associated thermal isolating material; and

a plurality of generally C-shaped channels respectively disposed between the thermal isolating material and the first surface of each sidewall assembly.

19. The insulated boxcar of Claim 18 further comprising each pocket extending into one of the generally C-shaped channels.

20. An insulated boxcar comprising:

a railway car underframe having a floor assembly mounted thereon and attached thereto;

the railway car underframe and the floor assembly having generally elongated, rectangular configurations;

a pair of sidewall assemblies mounted on and attached to opposite sides of the railway car underframe;

a pair of endwall assemblies mounted on and attached to opposite ends of the railway car underframe;

a roof assembly attached to the sidewall assemblies and the endwall assemblies opposite from the floor assembly;

each sidewall assembly having an exterior surface and an interior surface;

a plurality of support posts disposed between the interior surface and the exterior surface of each sidewall assembly;

a cargo restraining system defined in part by a floor anchor system disposed adjacent to the floor assembly and a plurality of sidewall anchor assemblies disposed within each sidewall assembly;

portions of the floor anchor system disposed within respective sidewall assemblies;

each sidewall anchor assembly defined in part by a pocket formed in the interior surface of one of the sidewall assemblies adjacent to one of the support posts; and

a respective cargo anchor disposed within each pocket.

21. The insulated boxcar of Claim 20 further comprising a plurality of thermal insulators disposed between each sidewall anchor assembly and the associated support post to improve heat transfer ratings of the insulated boxcar.

22. The insulated boxcar of Claim 20 further comprising no cargo anchors disposed within the floor assembly.

23. The insulated boxcar of Claim 20 further comprising:

each sidewall assembly having an opening formed therein to accommodate a respective door assembly;

cargo anchors disposed within the floor assembly proximate the openings in the sidewall assemblies; and

no other cargo anchors disposed within the floor assembly.

24. A boxcar comprising:

a box structure defined in part by a pair of sidewall assemblies and a pair of endwall assemblies mounted on a railway car underframe;

each sidewall assembly having an exterior surface and an interior surface;

a plurality of support posts disposed between the interior surface and the exterior surface of each sidewall assembly;

a floor assembly mounted on the railway car underframe;

respective angles extending longitudinally along opposite sides of the floor assembly;

each angle disposed adjacent to and engaged with one of the sidewall assemblies proximate a respective longitudinal joint between the sidewall assembly and the floor assembly;

a plurality of openings formed in each angle; and

the openings sized to receive cargo anchor assemblies.

25. The boxcar of Claim 24 further comprising:

each exterior surface of each sidewall assembly formed in part by material selected from the group consisting of wood, steel, aluminum and fiber reinforced plastic; and

the interior surface of each sidewall assembly formed in part by material selected from the group consisting of wood, steel, aluminum and fiber reinforced plastic.

26. The boxcar of Claim 24 further comprising:

the exterior surface of each sidewall assembly formed at least in part from material selected from the group consisting of steel alloys, aluminum alloys, other metal alloys satisfactory for manufacturing railway cars, wood, fiber reinforced plastic materials and other composite materials; and

the interior surface of each sidewall assembly formed at least in part from material selected from the group consisting of steel alloys, aluminum alloys, other metal alloys satisfactory for manufacturing railway cars, wood, fiber reinforced plastic materials and other composite materials.

27. The boxcar of Claim 24 further comprising steel interior surfaces disposed within the box structure satisfactory for carrying lading selected from the group consisting of coiled steel, lumber, pasteurized and unpasteurized beer, wine, newsprint, paper rolls, paper products, automobile parts, household goods, appliances, electronic equipment, liquid filled containers, non-perishable food products and other packaged goods.

28. The boxcar of Claim 24 further comprising the support posts selected from the group consisting of steel alloys, aluminum alloys and composite materials.

29. The boxcar of Claim 24 further comprising:

each sidewall assembly having an opening with a respective door slidably disposed on the exterior of the sidewall assembly; and

each door having a first, closed position which blocks access to the interior of the box structure and

a second, open position which allows access to the interior of the box structure.

30. An insulated boxcar comprising:

a box structure defined in part by a pair of sidewall assemblies, a pair of endwall assemblies, a floor assembly and a roof assembly;

the floor assembly mounted on a railway car underframe;

the sidewall assemblies mounted on the railway car underframe adjacent to respective longitudinal edges of the floor assembly;

each sidewall assembly having an exterior surface and an interior surface with insulating materials disposed therebetween;

a plurality of support posts disposed between the interior surface and the exterior surface of each sidewall assembly;

a respective opening formed in each sidewall assembly to provide access to interior portions of the box structures;

portions of a load restraint system disposed within each sidewall assembly;

cargo anchors disposed within the floor assembly only at locations proximate the respective opening in each sidewall assembly; and

no cargo anchors disposed within other portions of the floor assembly.

31. An insulated boxcar comprising:

a box structure defined in part by a pair of sidewall assemblies, a pair of endwall assemblies, a floor assembly and a roof assembly;

the floor assembly mounted on a railway car underframe;

the sidewall assemblies mounted on the railway car underframe the floor assembly;

a respective opening formed in each sidewall assembly to provide access to interior portions of the box structures;

cargo anchors disposed within the floor assembly at locations proximate the respective opening in each sidewall assembly; and

a drain system coupled with the cargo anchors disposed in the floor assembly to allow removal of water and any other liquid collected in the cargo anchors.

32. The insulated boxcar of Claim 31 further comprising:

the cargo anchors defined in part by an elongated cargo anchor plate attached with adjacent portions of the railway car underframe proximate the opening in each sidewall assembly;

a plurality of openings formed in each plate for use in securing lading at a desired location within the insulated boxcar;

the drain system defined in part by a generally U shaped channel attached with each cargo anchor plate to form a cargo anchor cavity communicating with the respective openings in each plate; and

at least one opening formed in the generally U shaped channel to allow water and other liquids to drain from the cargo anchor cavity.

33. The insulated boxcar of Claim 32 wherein the drain system further comprises:

respective openings formed in the cargo anchor cavity adjacent to each end thereof;

a first metal pipe securely engaged with each opening;

a respective second pipe formed from composite materials engaged with each first pipe for use in communicating water and other liquids from the cargo anchor cavity; and

a cap releasably engaged with one end of each second pipe opposite from the cargo anchor cavity.